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Pennine My Way Part II

Kit Tyabandha, Ph.D.

The Pennines is a range of hills 250-mile long in northern England, from the Scottish border to the Peaks in Derbyshire. At 2,930 feet (893 m) Cross Fell is the highest peak in the range. Carboniferous limestone and millstone grit are the rocks making up the range. High moorland, fell and underground watercourses are characteristic to the land. From it the rivers Eden, Kibble and Mersey flow westwards towards the Atlantic, while the Aire, Don, Swale, Tees and Tyne eastwards towards the North Sea.

The Pennine Way is Britain's first long-distance footpath. It was opened in 1965. This *Pennine My Way* is a travelogue I kept when I walked the Pennine Way between 22nd August and 3rd September 2006. A list of places where I stayed during the walk is given in Table 1.

<i>Date</i>	<i>Accommodation</i>
22 nd August 2006	Crowden Youth Hostel
23 rd August 2006	Mankinholes Youth Hostel
24 th August 2006	Earby Youth Hostel
25 th August 2006	Malham Youth Hostel
26 th August 2006	Golden Lion Hotel, Horton-in-Ribblesdale
27 th August 2006	Keld Youth Hostel
28 th August 2006	Belvedere House, Middleton-in-Teesdale
29 th August 2006	Dufton Youth Hostel
30 th August 2006	Alston Youth Hostel
31 st August 2006	Once Brewed Youth Hostel
1 st September 2006	Crofters End, Bellingham
2 nd September 2006	Byrness Youth Hostel
3 rd September 2006	Kirk Yetholm Youth Hostel

The Peak District National Park was established in 1951. It was the first national park in Britain. The northern part is known as 'Dark Peak', and is made up of gritstone. The southern part is known as 'White Peak', and is made up of limestone.

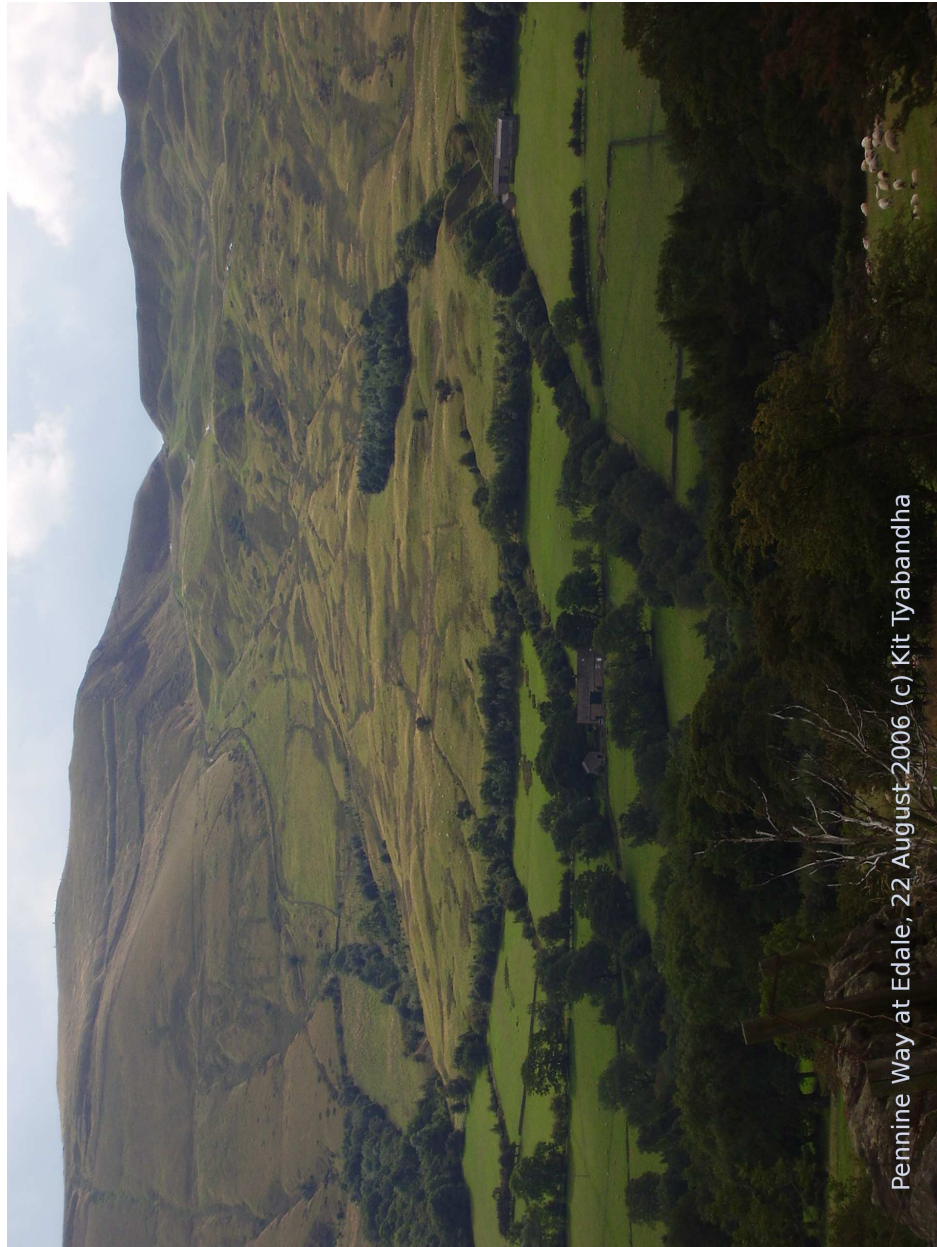
The first day of the walk began in Edale in the Dark Peak of Peak District and climbed up Jacob's Ladder to Kinder Scout, which at 2,087 feet (636 m) is the highest peak in the national park. It then crossed over Snake Pass, which cuts across the Pennines to Glossop in the west, and then went via Bleaklow and Torside Clough to Crowden by Torside Reservoir. After Jacob's Ladder I went the wrong way to the south of Kinder Scout, instead of to the east, and had to cut across moorland to find the right way.

Having crossed the Snake Pass I met two walkers at the end of their walk. After we had talked and parted they ran after me and gave me the map they had, having seen that I had no map. They said that it was an old one, and not their only one.

First Day
22nd August 2006

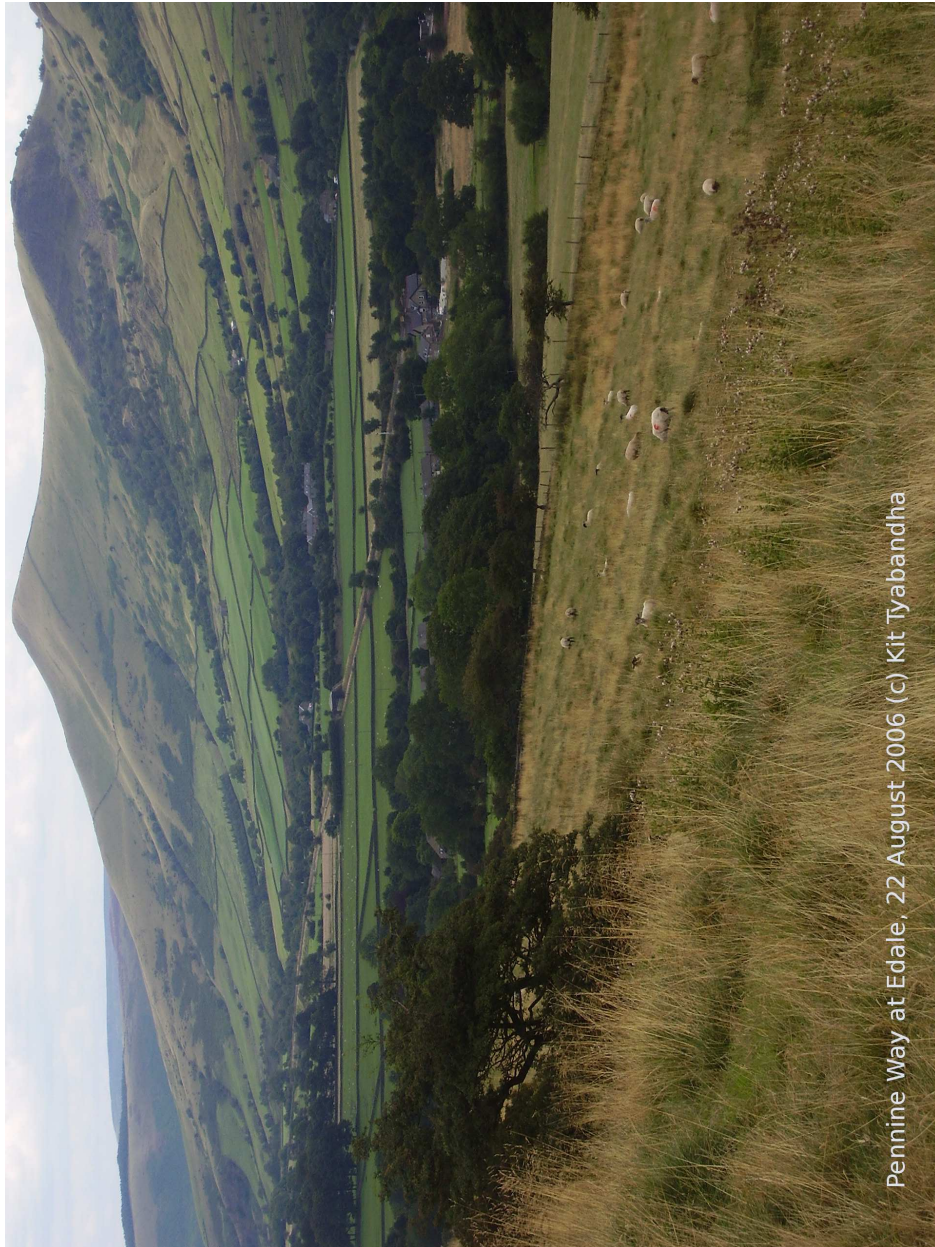


Pennine Way at Edale; 22 August 2006 (c) Kit Tyabandha





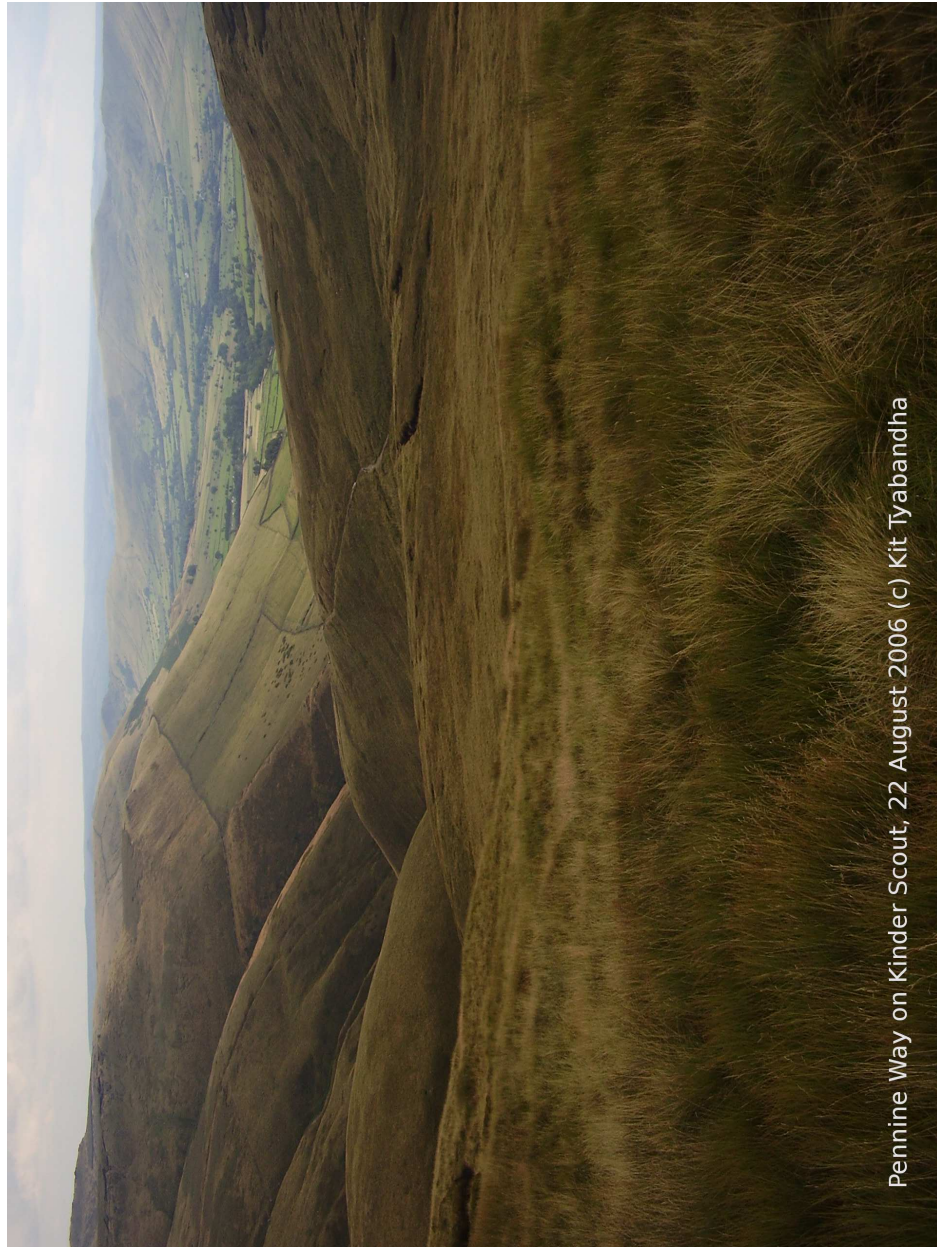
Pennine Way at Edale, 22 August 2006 (c) Kit Tyabandha







Pennine Way at Jacob's Ladder, 22 August 2006 (c) Kit Tyabandha



Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



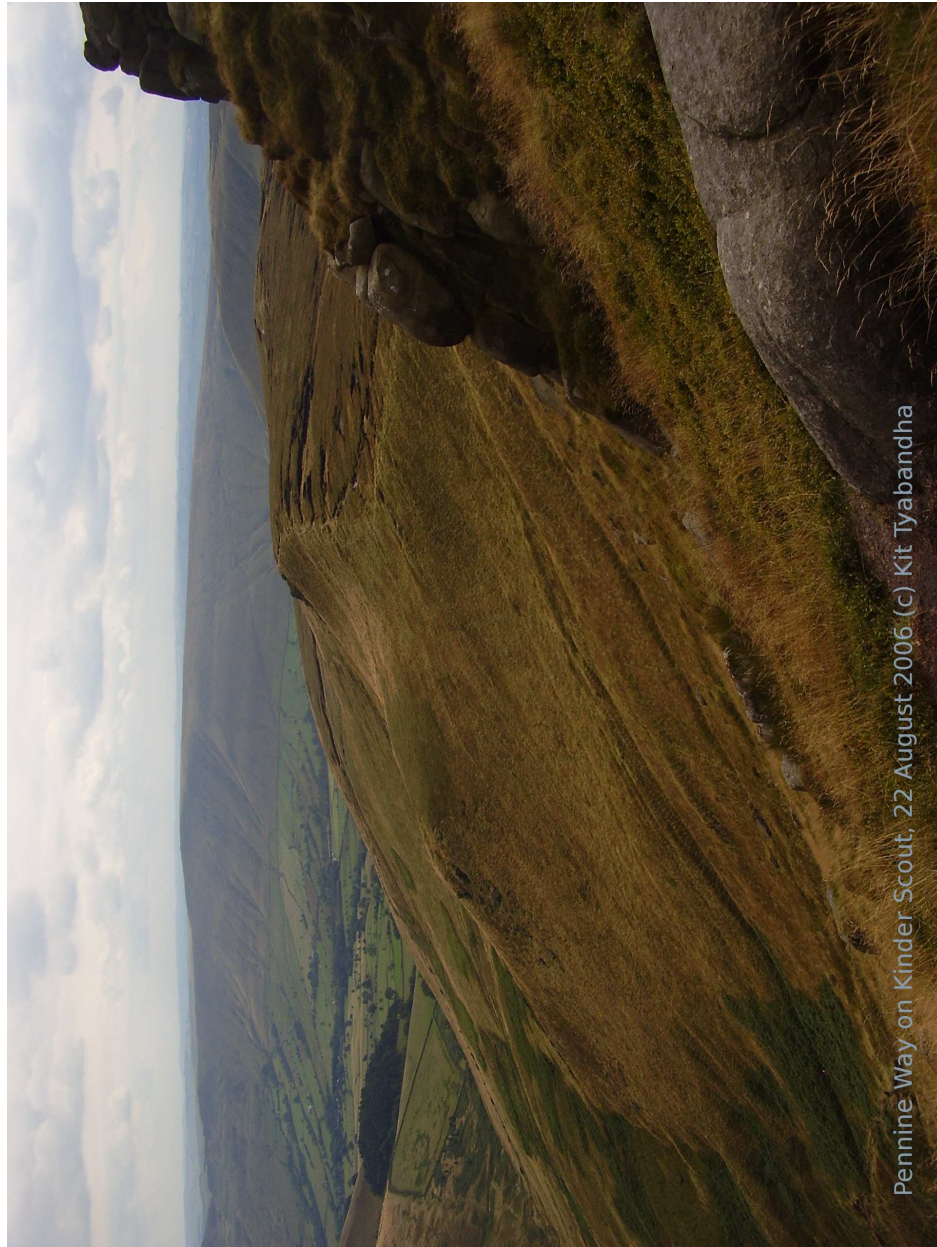
Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



Pennine Way on Kinder Scout; 22 August 2006 (c) Kit Tyabandha



Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha





Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha







Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



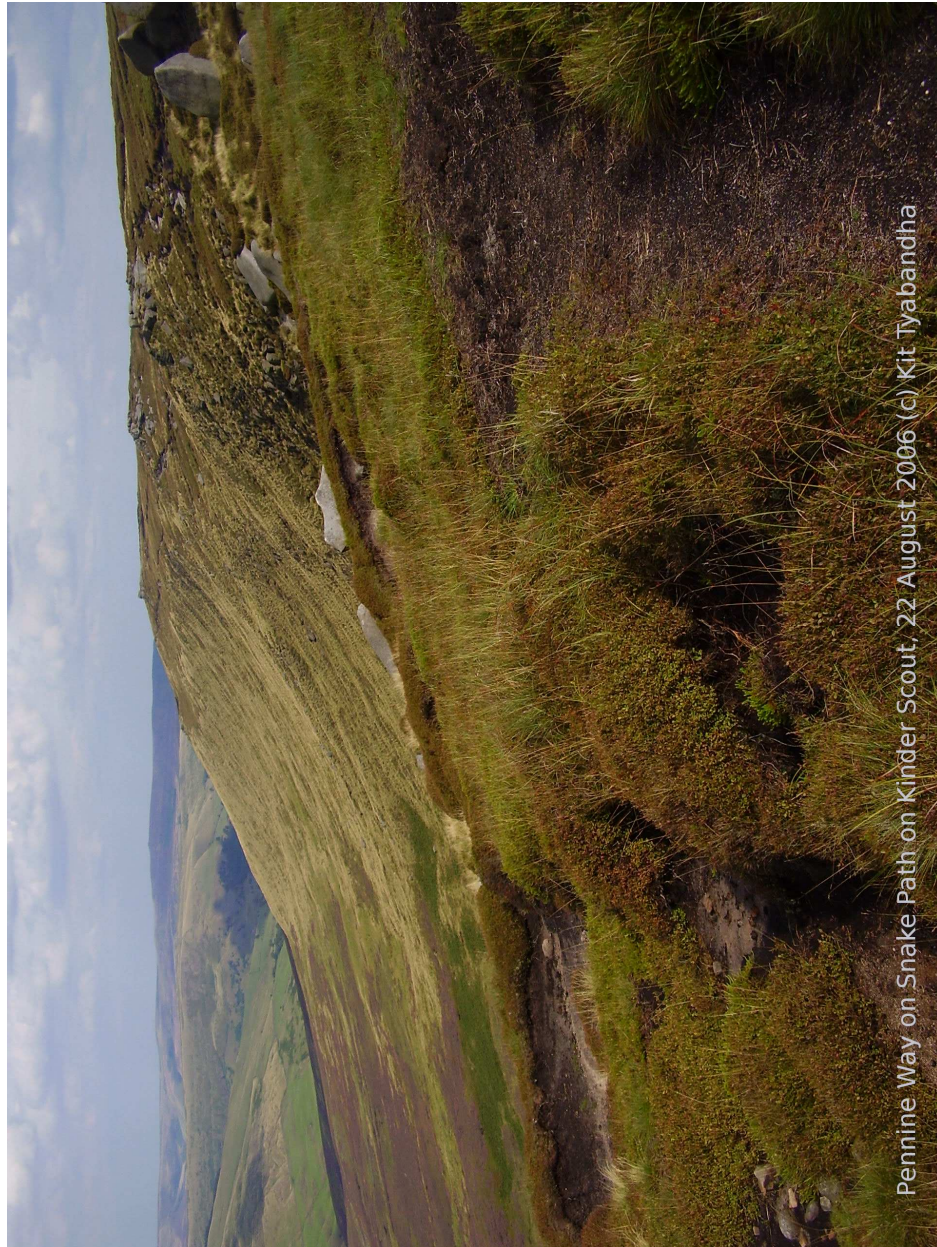
Permian Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



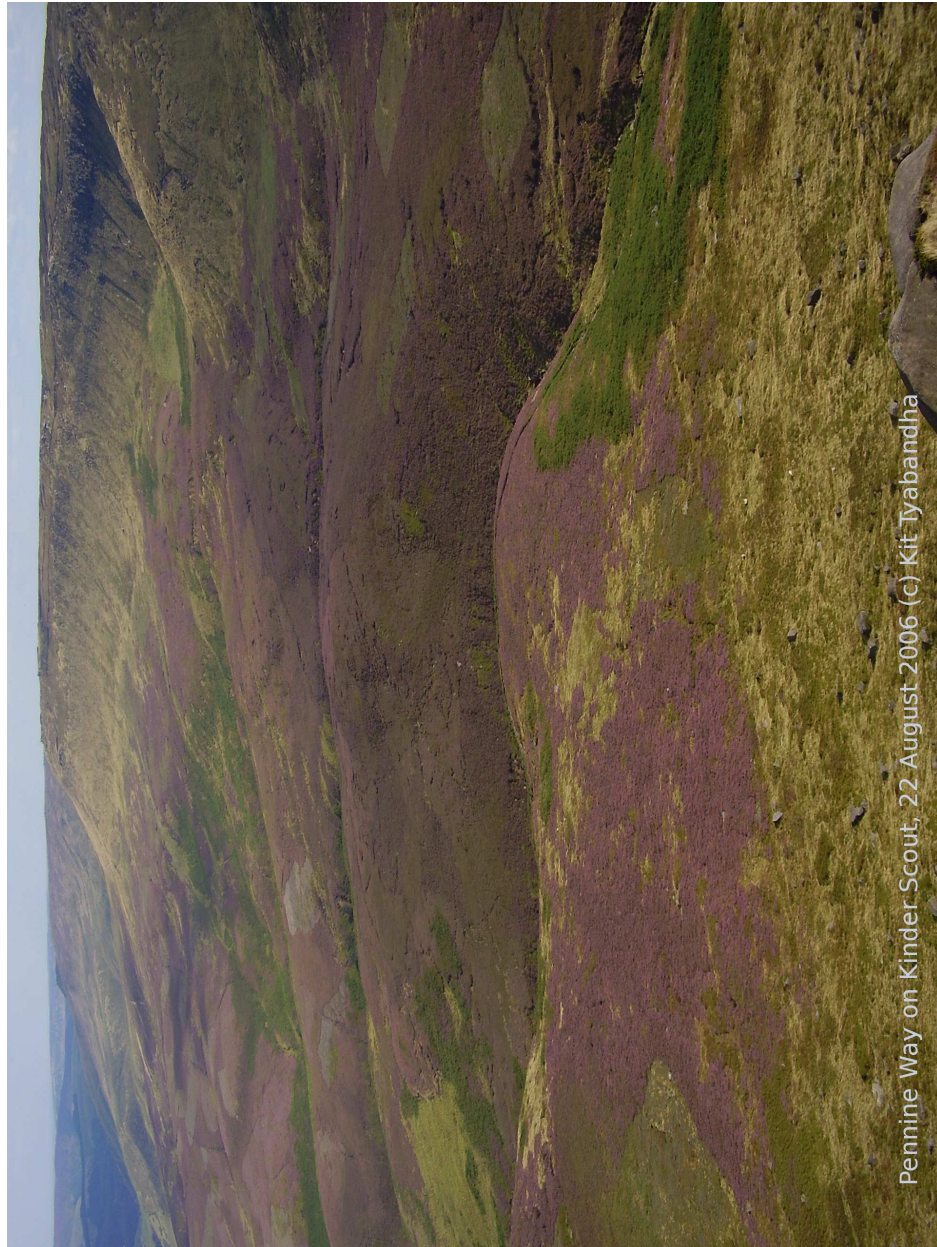




Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha

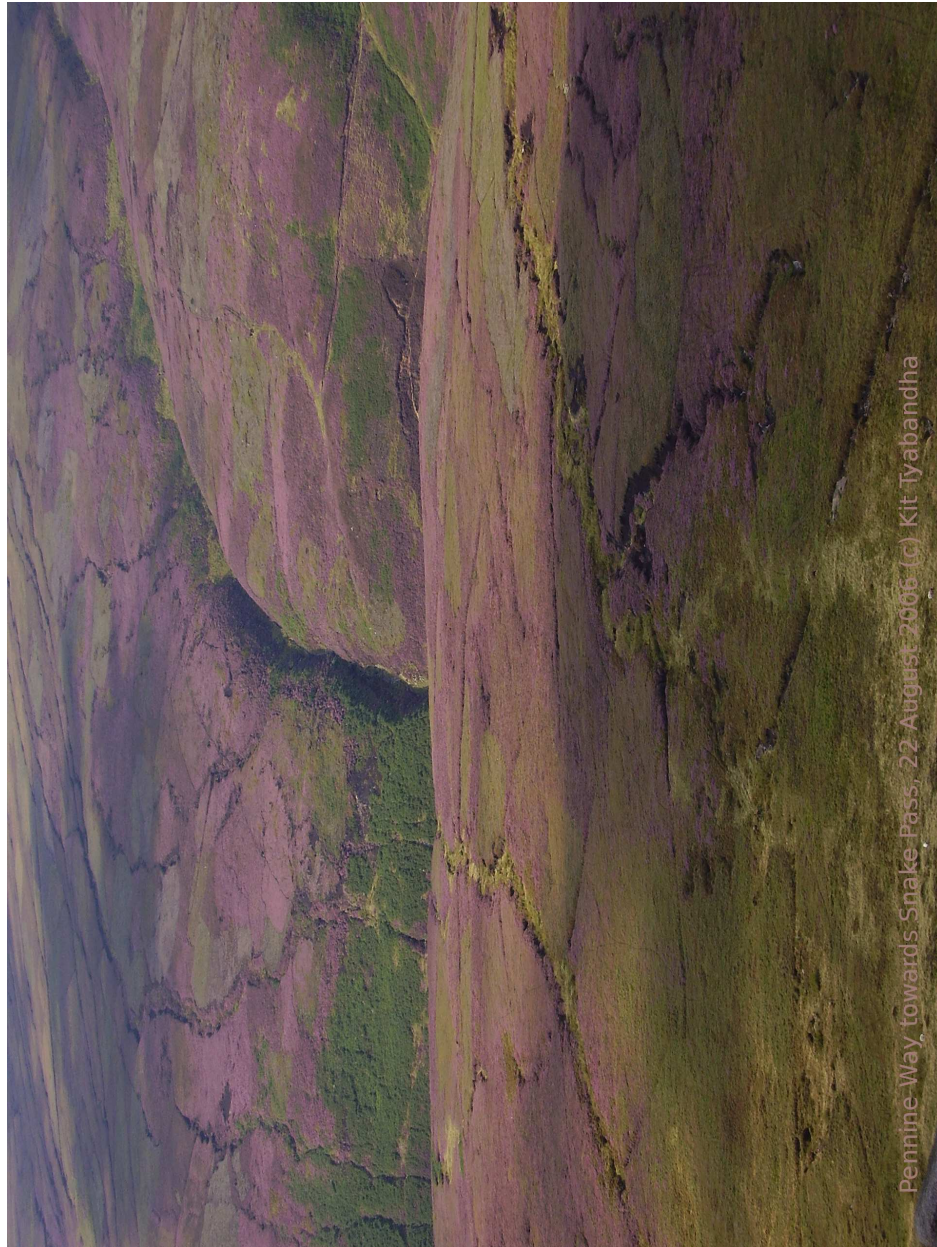




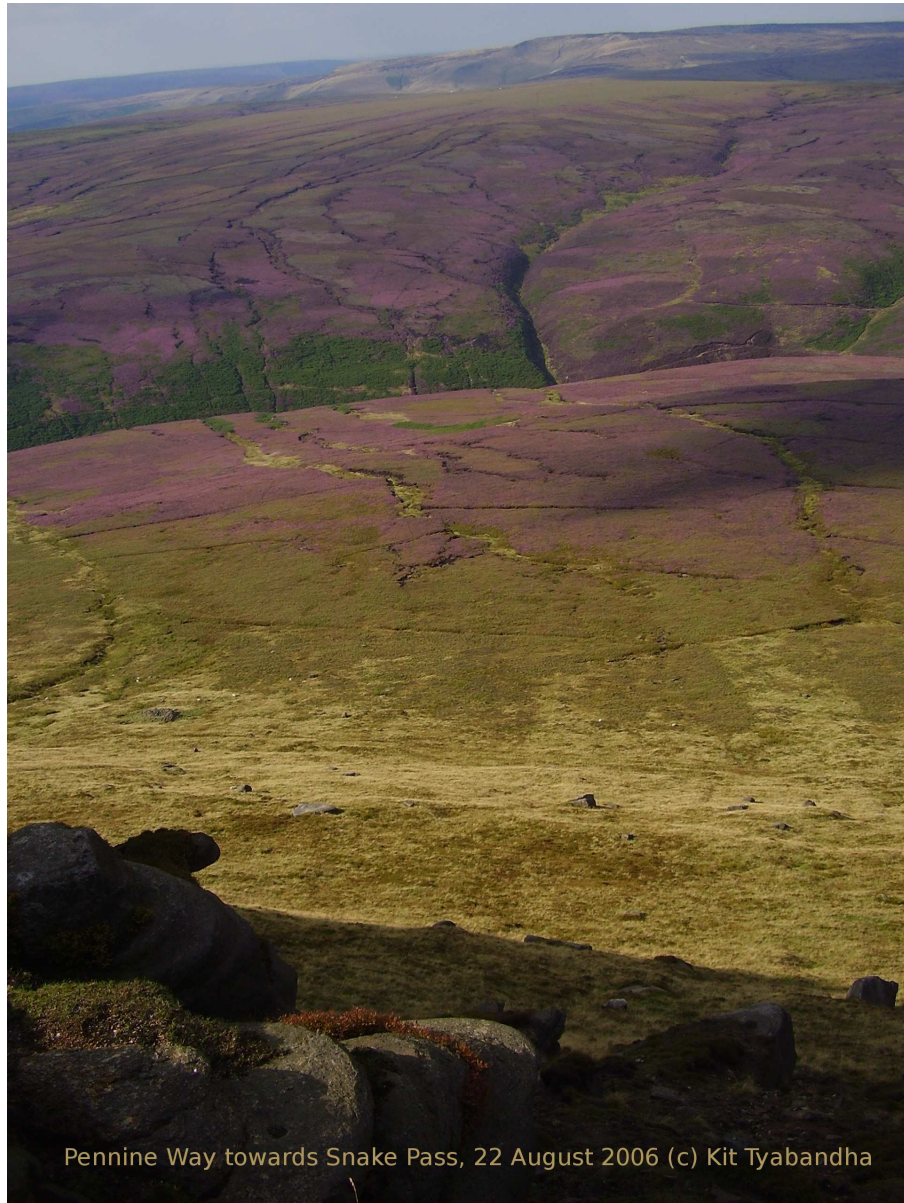


Pennine Way on Kinder Scout, 22 August 2006 (c) Kit Tyabandha



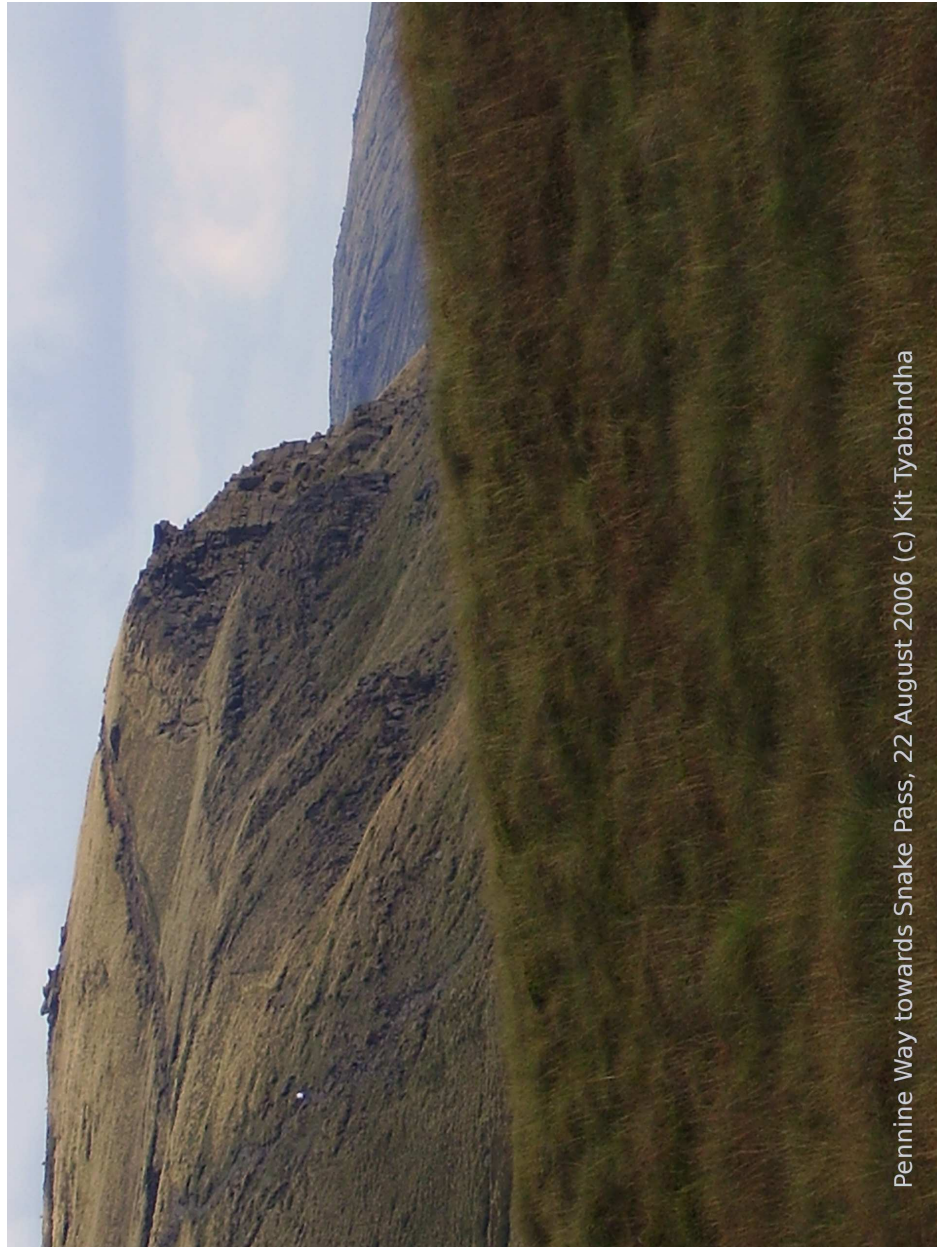


Pennine Way, towards Snake Pass, 22 August 2006 (c) Kit Tyabandha

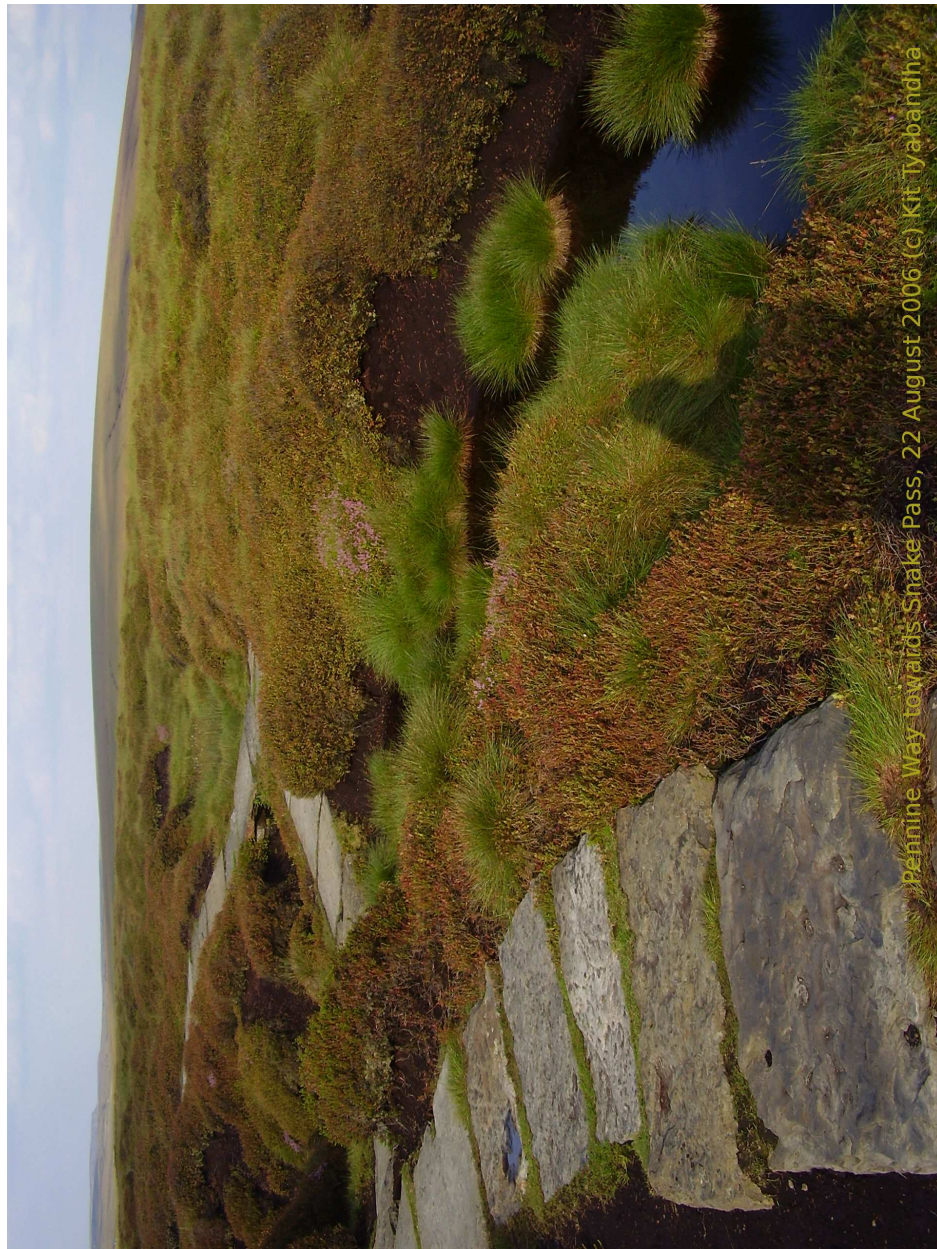


Pennine Way towards Snake Pass, 22 August 2006 (c) Kit Tyabandha

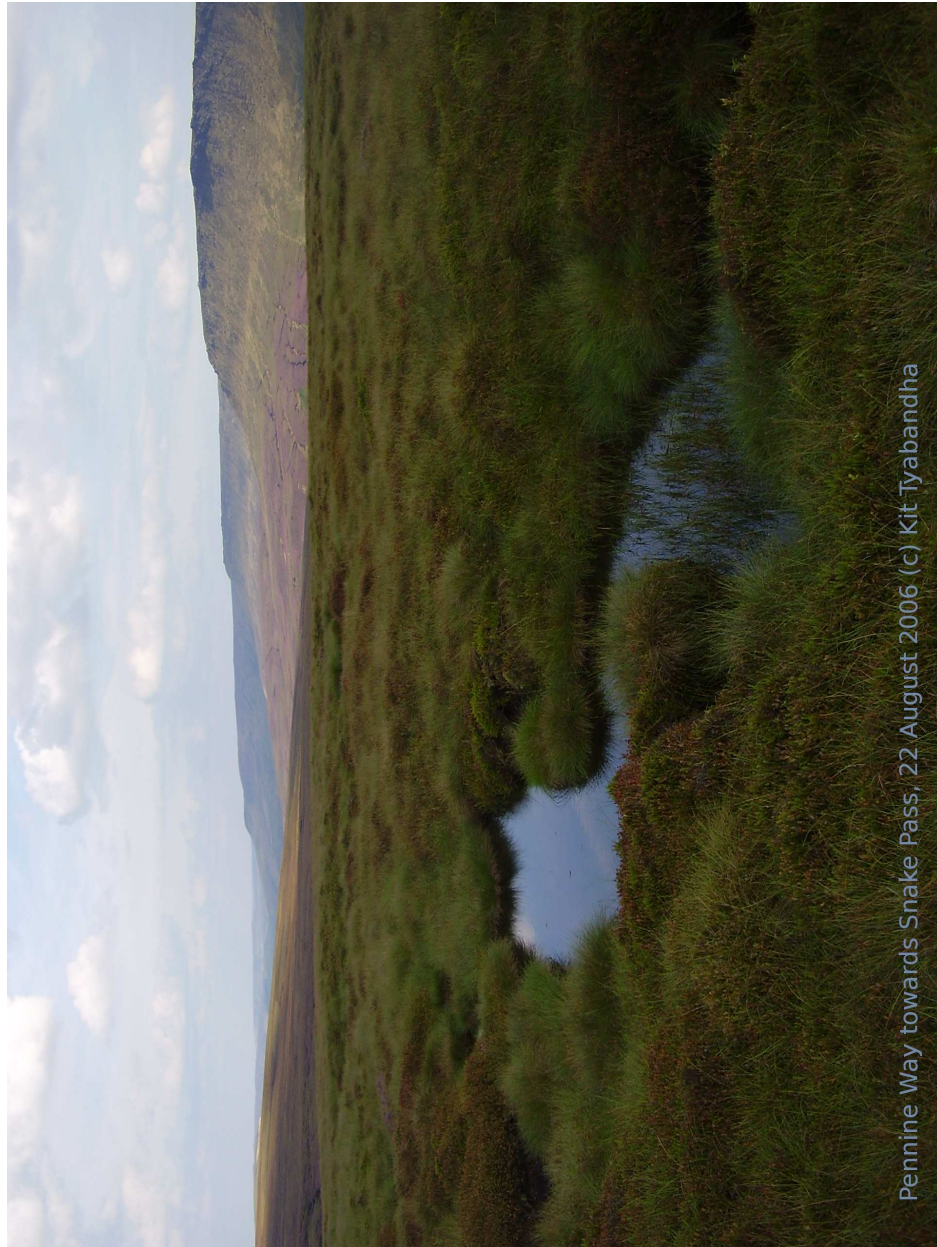


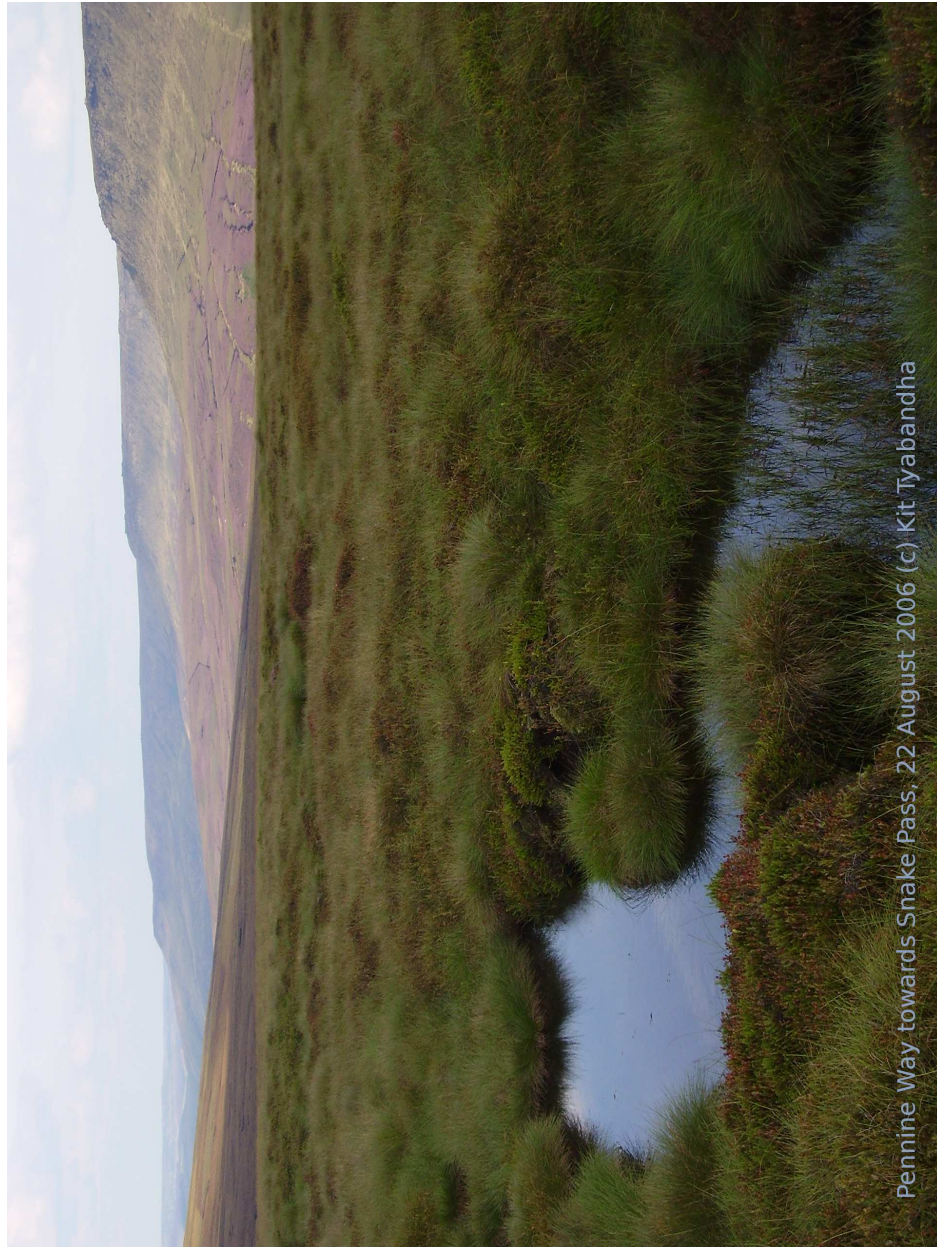


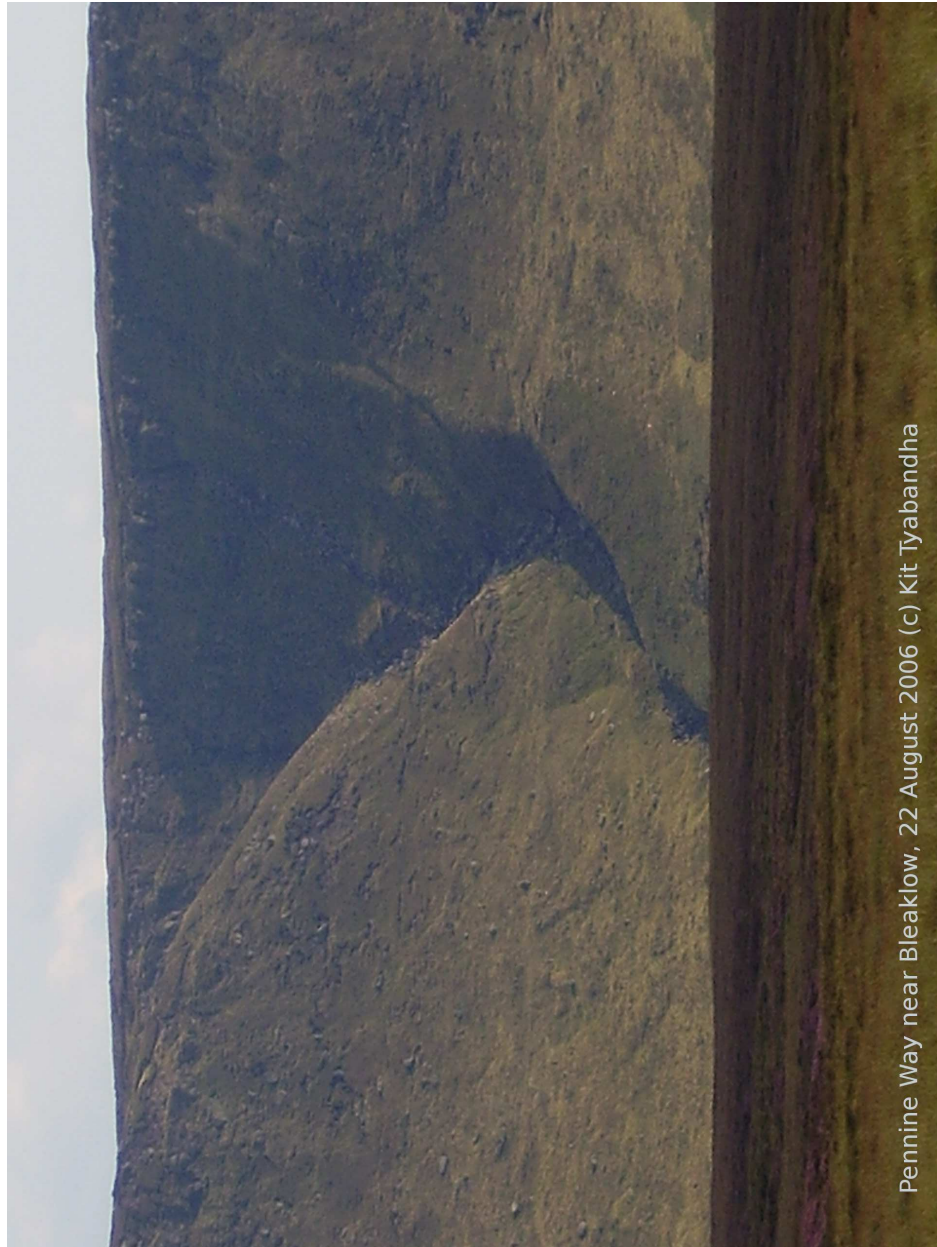
Pennine Way towards Snake Pass, 22 August 2006 (c) Kit Tyabandha



Pennine Way towards Snake Pass, 22 August 2006 (c) Kit Tyabandha



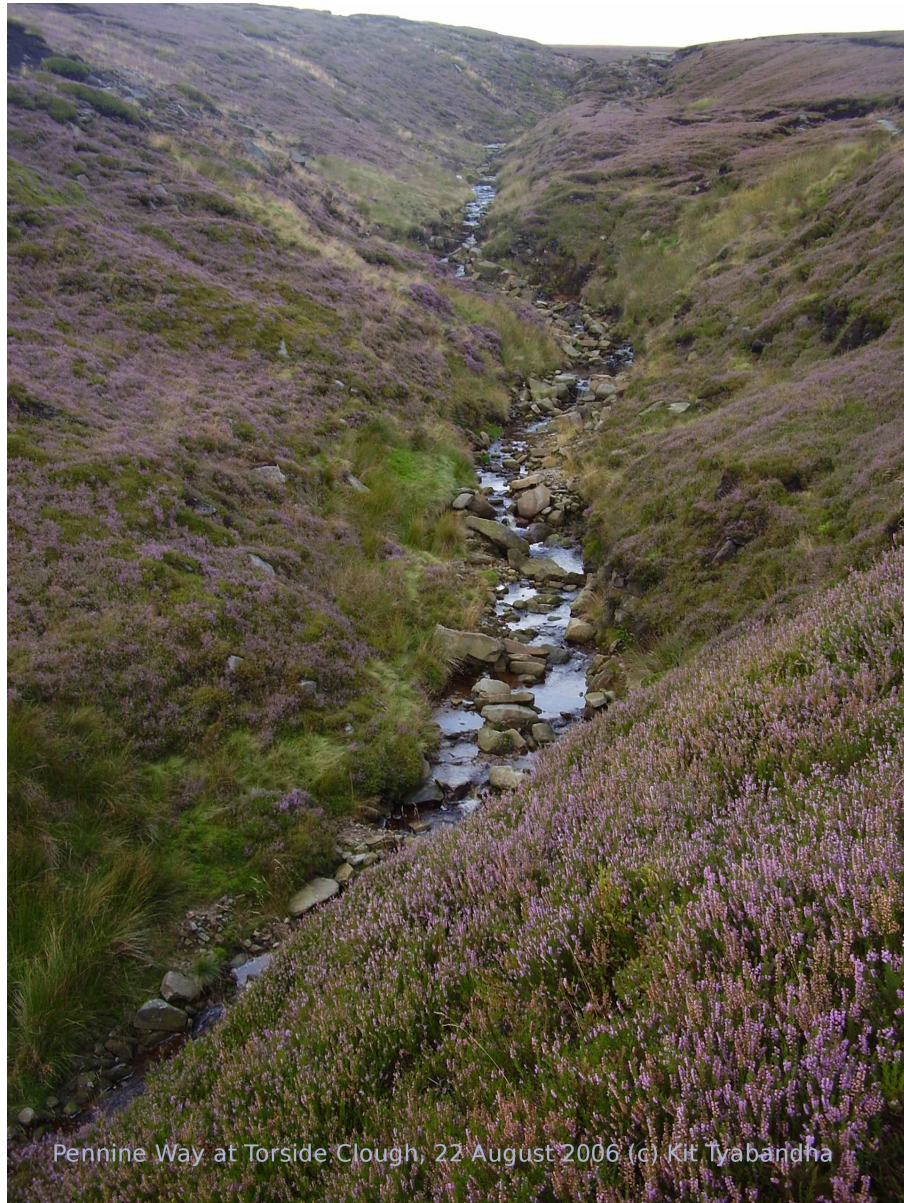








Pennine Way at Bleaklow, 22 August 2006 (c) Kit Tyabandha



Pennine Way at Torside Clough, 22 August 2006 (c) Kit Tyabandha



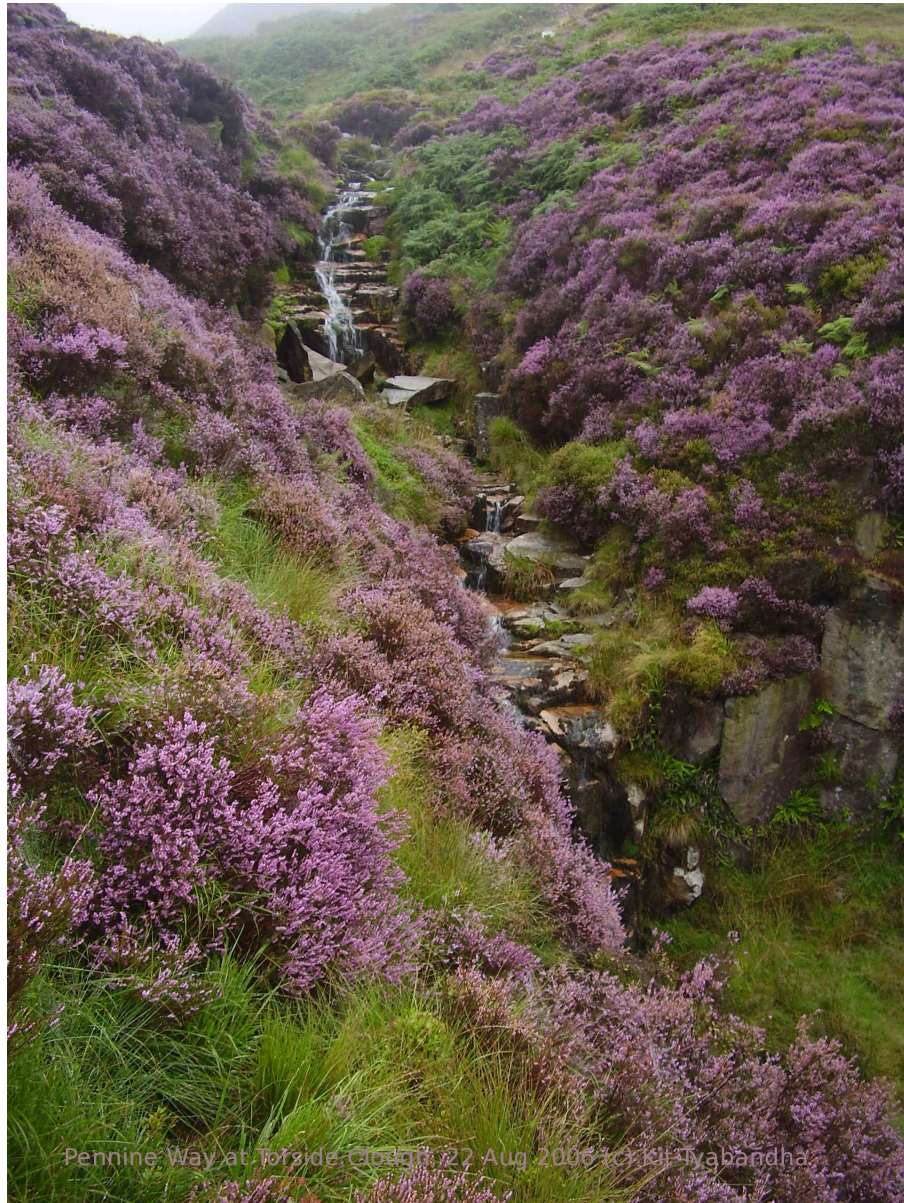
Pennine Way towards Torside Reservoir, 27 August 2006, (c) Kit Tyabandha



Pennine Way towards Torside Reservoir, 22 August 2006 (c) Kit Tyabandha



Pennine Way towards Torside Reservoir. 22 August 2006 (c) Kit Tyabandha







Pennine Way, a grouse, Torside, 22 August 2006 (c) Kit Tyabandha

Percolation Problems

Kit Tyabandha, Ph.D.

S-curves and the percolative phenomena

Before any abrupt change occurs there must be a graduation process leading up to it. In processes where the time constant is long, the characteristic s-shape is obvious, take for example a learning curve. But even where time constants are short, it is doubtful whether such thing as a strictly abrupt change exists. At the very point of transition, undoubtedly there may be a singularity, for instance at the Big Bang. But even the Big Bang can not exist alone by itself. To preserve the symmetry of nature, there must be another process at the other end leading up to it. It is only because such process must necessarily be on the other side from us and we can not see it from here. That side may belong to the antimatter or the anti-universe, but I believe whenever there is a singularity there must be a symmetry.

An earlier work by Tiyanpan (2003) can be used as an example. The per cent extraction curves which I drew then (Tiyapan, 1991) all show the change to be abrupt, starting off from zero time immediately with a positive gradient. This can not happen in the real world, so there must have been a foot of the characteristic s-curve at the beginning. It must have been that the sampling time used is too long, and anyhow the nature of the reaction may make it impossible to observe the development in detail with accuracy.

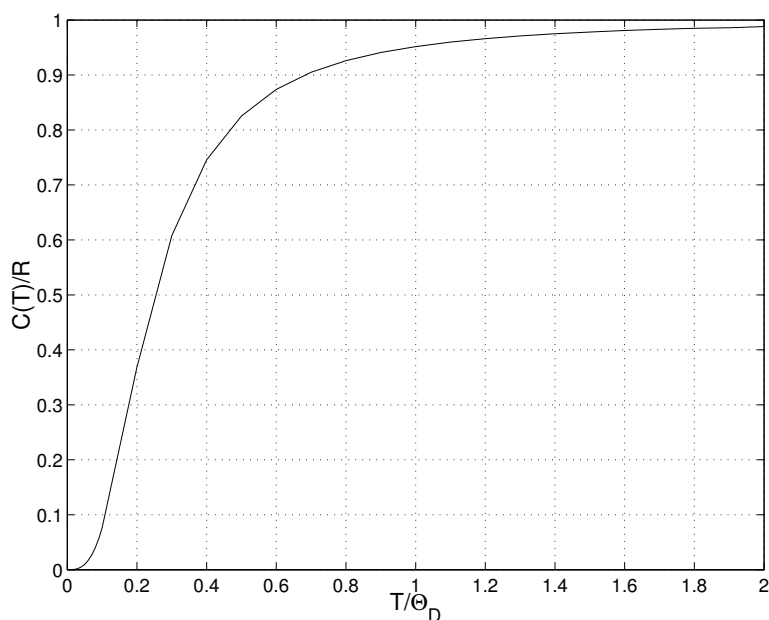


Figure 1 Predicted value of the heat capacity of monoatomic solids according to Debye

The predicted value of the heat capacity of monoatomic solids according to the Debye theory, from de Podesta (1996), is shown in Figure 1. According to Debye, $C_V = (1944p/\Theta_D^3)T^3 \text{ JK}^{-1}\text{mol}^{-1}$ (cf de Podesta, 1996). The curve in Figure 1 shows the characteristic s-shape which should have appeared in Tiyyapan (2003):.

The foot of a positive s-curve has a positive, nonzero second derivative. This corresponds with the positive cooperativity of the product curve in studies of enzyme assay and kinetics. In enzyme assay, the product versus time graph shows a positive cooperativity characteristic when the Hill constant $h > 1$ in the equation $y_s = [s]^h / (K + [s]^h)$, where y_s is the fractional saturation of the enzyme with substrate while s the concentration of the substrate (Eisenthal and Danson, 2002). Cooperativity reflects the equilibrium binding of substrate or other ligand. The binding of a substrate molecule to an enzyme either facilitates, when the cooperativity is positive, or hinders, when the same is negative, the binding among molecules of the same substrate.

Bibliography

R. Eissenthal and M. J. Danson. *Enzyme Assays*. 2nd ed. Oxford. 1992 (2002).

Michael de Podesta. *Understanding the properties of matter*. 2nd ed. Taylor & Francis. 1996 (2002).

K Tiyaan. Antimonytrioxide extraction from stibnum ore by hydrometallurgical method. Senior project. [Final year project]. Mining Engineering, Chulalongkorn University, Thailand, 1991.

K N Tiyaan. *Percolation within percolation and Voronoi Tessellation*. Kittix, Bangkok, 2003

On Pragmatist and Idealist

Kit Tyabandha, Ph.D.

21st October 1996

There are two important qualities which together help making great men of the world. They are pragmatism and idealism. Idealism requires that a person has got an idea in which he believes to be a good cause in doing something. An idealist sticks to his ideal and his action is influenced by it. On the other hand, a pragmatist is a practical person who takes into account methods which are available at that time, as well as the constraints involved, into account. Pragmatism implies that one has got to use tricks sometimes. Idealic without pragmatic is futile, while pragmatic without idealic is stupidity. To put in another words, pragmatism alone makes a man without a heart, while idealism alone makes a man without a head.

Take for an example, the play *Julius Caesar* by William Shakespeare. The play depicts the returning of Julius Caesar to Rome after his victories in far lands. He was murdered by a group of conspirators which was led by Decius Brutus, but which was designed by Cassius. In this play Shakespeare has shown us three different personations, the first one represents a pragmatist, the second one an imperfect combination of the two qualities, and the third one a perfectly balanced person who has both a pragmatic and an idealic quality.

The first one is Cassius who, with his fluent words, succeed in inducing other people, including Brutus, to help murdering Caesar. He hates Caesar, and has no qualm in killing him. His character was described by Caesar himself when he speaks to Mark Antony,

I do not know the man I should avoid
So soon as that spare Cassius. He reads much;
He is a great observer and he looks
Quite through the deeds of men: he loves no plays,
As thou dost, Antony; he hears no music;

Julius Caesar, Act 1 Scene 2.

Cassius is being described here as a man with knowledge, because he reads much, but who is without inner good qualities necessary to

make a man, because he neither like plays nor like music. Therefore he is a stereotype of our previous definition, that is *with head but without heart*. Caesar mentioned here Mark Antony as the opposite side of Cassius, which he is, as we shall see afterward. Here, also, Caesar seems to know beforehand that there will be trouble coming from the direction of Cassius, though he does not know how it will happen.

The next character is Brutus, who also loves Caesar, but either because he succumbs to his own jealousy in Caesar or because he is led towards [that] direction by the clever Cassius, has decided to take part in the bloody business and stabs Caesar in the back. This statement can be seen in the following lines taken from Act 1 Scene 2 of the play, where he says to Cassius.

I would not, Cassius; yet I love him well.
But wherefore do you hold me here so long?

Julius Caesar, Act 1 Scene 2.

Antony is portrayed by Shakespeare to possess a perfect harmony between the two qualities. As a leader, he is both an idealic and a pragmatic at the same time. He has much love for both Caesar and Rome. After Caesar has been killed by the conspirators Antony flees to his own house and hides there. Realising that he will be the next target of attack and knowing that the force from the other side is too great for him to resist, he sends a servant to prostrate himself before Brutus. This is what happens.

Thus, Brutus, did my master bid me kneel:
Thus did Mark Antony bid me fall down;
And, being prostrate, thus he bade me say:
Brutus is noble, wise, valiant, and honest;
Caesar was mighty, bold, royal, and loving:
Say I love Brutus, and I honour him;
Say I fear'd Caesar, honour'd him and loved him.

Julius Caesar, Act 3 Scene 1.

Then without a word of lie he joins the group of his enemy to the market-place to meet a crowd of roman citizens. At the market-place Brutus gives a speech. He tells the people of Rome that in killing Caesar he has saved Rome from ruin because Caesar was ambitious,

and that although he loves Caesar much he loves his country even more. The people believe what Brutus says. After that Brutus Antony to come upon the stage to talk to the people also. This Antony does, and he gives such a good speech that at the end of it all the romans turn against the conspirators and demand vengeance for the death of Caesar. His speech is so tactful that it conveys different meanings to two groups of people who are listening to it at the same time, that is the conspirators and the people. Antony wants to rouse the people, who by this time have already agreed with what Brutus has said, to go against him. To do this he needs to build up the emotion of the mob without letting his enemy realise what he is at, otherwise they can stop him at any time and all his effort will be in vain.

Friends, Romans, countrymen, lend me your ears;
 I come to bury Caesar, not to praise him.
 The evil that men do lives after them;
 The good is oft interred with their bones;
 So let it be with Caesar. The noble Brutus
 Hath told you Caesar was ambitious:
 If it were so, it was a grievous fault,
 And grievously hath Caesar answer'd it.
 Here, under leave of Brutus and the rest—
 For Brutus is an honourable man;
 So are they all, all honourable men—
 Come I to speak in Caesar's funeral.
 He was my friend, faithful and just to me:
 But Brutus says he was ambitious;
 And Brutus is an honourable man.
 He hath brought many captives home to Rome
 Whose ransoms did the general coffers fill:
 Did this in Caesar seem ambitious?
 When that the poor have cried, Caesar hath wept:
 Ambition should be made of sterner stuff:
 Yet Brutus says he was ambitious;
 And Brutus is an honourable man.
 You all did see that on the Lupercal
 I trice presented him a kingly crown,
 Which he did thrice refuse: was this ambition?
 Yet Brutus says he was ambitious;
 And, sure, he is an honourable man.
 I speak not to disprove what Brutus spoke,
 But here I am to speak what I do know.
 You all did love him once, not without cause:
 What cause withholds you then, to mourn for him?
 O judgement! thou art fled to brutish beasts,

And men have lost their reason. Bear with me;
 My heart is in the coffin there with Caesar,
 And I must pause till it come back to me.

Julius Caesar, Act 3 Scene 2.

In it he says all the time that the traitors are all honourable men. By *honourable men* it neither imply that they are men of virtue or that their deed is right or pardonable. Talking about their claim that Caesar was an ambitious man, he gives several examples of the good things which Caesar has done for Rome, for example the ransom received in exchange for captivated enemies, the love of Caesar for the people including the poors, and the rejection of the crown which was being offered to him by Antony himself at previous public gatherings. Through these carefully selected examples he has shown to the romans that if Caesar is ambitious he is so only for the prosperity of Rome and its people. Nor that *ambition* [is] a negative quality, if it does not have anything to do with selfishness. Among its synonyms is the word *aspiration* which definitely implies a positive quality of a person. For the reason given, this speech made by Antony is much studied by students of English literature and is very well known to the rest of the English speaking people. From Figure 1 we can see how Antony managed to change the direction of the emotion of the romans. After that he talks about a will written by Caesar, which he says he is not going to read.

But here's a parchment with the seal of Caesar;
 I found it in his closet, 'tis his will:
 Let but the commons hear this testament—
 Which, pardon me, I do not mean to read—
 And they would go and kiss dead Caesar's wounds
 And dip their napkins in his sacred blood,

Julius Caesar, Act 3 Scene 2.

He stresses that it is not his wish to read the will lest the people will mutiny against *the noble men*. The effect which is produced after that can be seen in the steep increase in emotion in Figure 1 as well as an excerpt from the following short dialogues among the citizens, which also helps us conclude that Mark Antony is portrayed in this play to be both an idealist and a pragmatist at the same time.

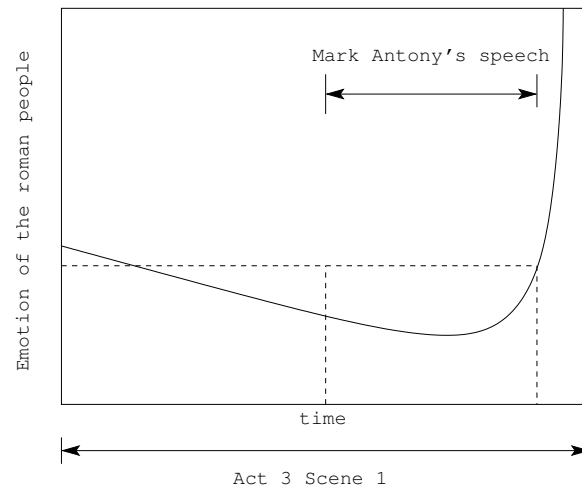


Figure 1 *The emotion of the roman people during the speech of Mark Antony*

All We'll mutiny.

First Citizen We'll burn the house of Brutus.

Third Citizen Away, then! come, seek the conspirators.

Julius Caesar, Act 3 Scene 2.

